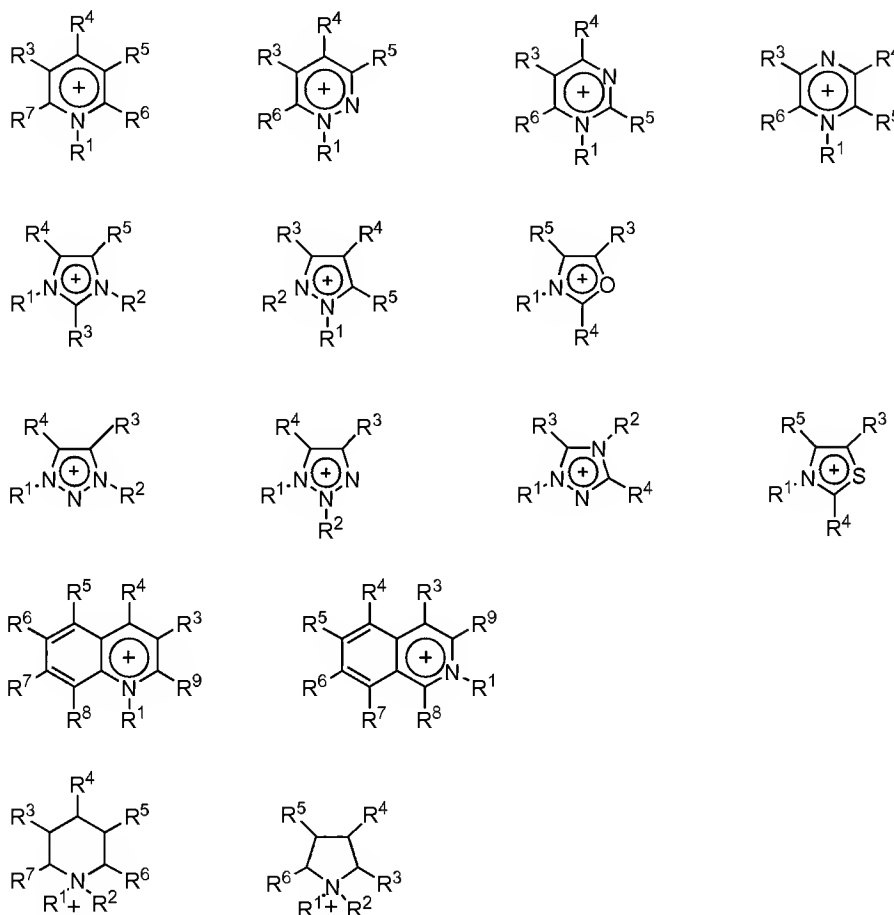


IN THE CLAIMS:

1. (Previously Presented) A method for depolymerizing starch comprising
mixing a starch material with an ionic liquid solvent comprising a cation and an anion to
dissolve the starch, and then
treating the dissolved starch by agitating at a temperature and for a period for time to
effect depolymerization of the starch into desired depolymerization products.
2. (Original) The method according to claim 1 wherein microwave irradiation is applied to
assist in dissolution and depolymerization.
3. (Previously Presented) The method according to claim 1 wherein pressure is applied to
assist in dissolution and depolymerization.
4. (Previously Presented) The method according to claim 1 wherein the depolymerization
temperature is at least 70°C.
5. (Previously Presented) The method according to claim 1 wherein the depolymerization
period is at least 5 minutes.
6. (Previously Presented) The method according to claim 1 wherein the starch is
depolymerized selectively such that the amylose of the starch is depolymerized into sugars and
the amylopectin of the starch is retained essentially unchanged.
7. (Previously Presented) The method according to claim 1 wherein the starch is
depolymerized quantitatively such that both the amylose and the amylopectin of the starch are
depolymerized into sugars.

8. (Original) The method according to claim 1 wherein the ionic liquid solvent is molten at a temperature of below 200°C.

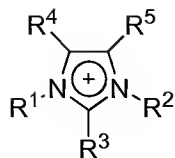
9. (Original) The method according to claim 1 wherein the cation of the ionic liquid solvent is selected from the group consisting of



wherein R¹ and R² are independently a C₁-C₆ alkyl or C₂-C₆ alkoxyalkyl group, and R³, R⁴, R⁵, R⁶, R⁷, R⁸ and R⁹ are independently hydrogen, a C₁-C₆ alkyl, C₂-C₆ alkoxyalkyl or C₁-C₆ alkoxy group or halogen, and

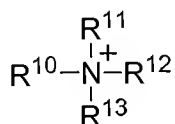
wherein the anion of the ionic liquid solvent is halogen, pseudohalogen, perchlorate or C₁-C₆ carboxylate.

10. (Previously Presented) The method according to claim 9 wherein said cation comprises



wherein R^3 - R^5 are each hydrogen and R^1 and R^2 are the same or different and represent C_1 - C_6 alkyl, and said anion is halogen.

11. (Original) The method according to claim 1 wherein the cation of the ionic liquid solvent is



wherein R^{10} , R^{11} , R^{12} and R^{13} are independently a C_1 - C_{30} alkyl, C_3 - C_8 carbocyclic or C_3 - C_8 heterocyclic group and the anion of the ionic liquid solvent is halogen, pseudohalogen, perchlorate, C_1 - C_6 carboxylate or hydroxide.

12. (Previously Presented) The method according to claim 1, further comprising separating the depolymerization products from the solution by adding a non-solvent for the depolymerization products to precipitate the depolymerization products.

13. (Original) The method according to claim 12 wherein said non-solvent is an alcohol, a ketone, acetonitrile, dichloromethane, a polyglycol, an ether or water.

14. (Previously Presented) The method according to claim 1, further comprising separating the depolymerization products from the solution by extraction with a non-solvent for the ionic liquid solvent.

15. (Previously Presented) The method according to claim 2 wherein pressure is applied to assist in dissolution and depolymerization.

16. (Previously Presented) The method according to claim 1 wherein the depolymerization temperature is at least 80°C.

17. (Previously Presented) The method according to claim 10 wherein said anion is chloride.